

Claims

1. A computer based method for providing
case base diagnostics for a work machine, the case
5 bases being comprised of diagnostic information and
processes related to the work machine, including the
steps of:

receiving from an user, a description of an
initial problem related to the work machine;
10 displaying at least one question, as a
function of the initial problem;
displaying a first set of recommended
actions, as a function of the initial problem;
receiving an answer from the user to the at
15 least one question; and,
displaying a second set of recommended
actions as a function of the initial problem and the
answer to the at least one question, wherein the
second set of recommended actions is a subset of the
20 first set of recommended actions.

2. A computer based method, as set forth
in claim 1, including the step of displaying the
answer provided by the user.

25

3. A computer based method, as set forth
in claim 1, including the step of displaying a
confidence level associated with each recommended
action in the first and second sets of recommended
30 actions.

4. A computer based method, as set forth

in claim 3, including the wherein the confidence level is displayed as a bar graph.

5 5. A computer based method, as set forth in claim 1, including the step of displaying a status associated with each recommended action in the first and second sets of recommended actions.

10 6. A computer based method, as set forth in claim 5, wherein the status associated with each recommended action has a value one of performed or not performed.

15 7. A computer based method, as set forth in claim 1, including the step of providing a link to information related to the work machine in an external source.

20 8. A computer based method, as set forth in claim 7, including the step of displaying the information in response to actuation of the link.

25 9. A computer based method, as set forth in claim 1, wherein the step of displaying at one question includes the step of displaying two or more questions and wherein the computer based method includes the step of identifying inconsistent answers provided by the user to the two or more questions.

30 10. A computer based method, as set forth in claim 1, including the step of reading data values from the work machine.

11. A computer based method, as set forth in claim 1, including the step of displaying an alert link corresponding to the at least one question.

5

12. A computer based method, as set forth in claim 11, including the step of displaying an alert dialog in response to actuation by the user of the alert link.

10

13. A computer based method, as set forth in claim 1, including the step of displaying an alert link corresponding to at least one recommended action from one of the first and second sets of recommended actions.

15

14. A computer based method, as set forth in claim 13, including the step of displaying an alert dialog in response to actuation by the user of the alert link.

20

15. A computer based method, as set forth in claim 1, including the step of displaying a question detail window containing detailed information regarding the at least one question, in response to user selection of the at least one question.

25

16. A computer based method, as set forth in claim 1, including the step of displaying an action detail window containing detailed information regarding a selected action from one of the first and second sets of recommended actions.

30

17. A computer based method for providing case base diagnostics for a work machine, the case bases being comprised of diagnostic information and
5 processes related to the work machine (128), including the steps of:

receiving from an user, a description of an initial problem related to the work machine;
displaying at least one question, as a
10 function of the initial problem;
displaying a first set of recommended actions, as a function of the initial problem;
receiving an answer from the user to the at least one question;
15 displaying a second set of recommended actions as a function of the initial problem and the answer to the at least one question, wherein the second set of recommended actions is a subset of the first set of recommended actions; and,
20 providing a graphical user interface for operation by the user.

18. A computer based method, as set forth in claim 17, including the step of providing a
25 diagnostic advisor window.

19. A computer based method, as set forth in claim 18, including the step of providing a tabbed window pane having a plurality of tabs, wherein
30 selection of one of the tabs results in a respective one of a plurality of panels being displayed in the tabbed panel.

20. A computer based method, as set forth
in claim 19, wherein each of the plurality of tabs
corresponds to a diagnostic panel, a diagnostic code
5 panel, and a functional tests panel, respectively.

21. A computer based method, for providing
case base diagnostics for a work machine, the case
bases being comprised of diagnostic information and
10 processes related to the work machine, including the
steps of:

receiving from an user, a description of an
initial problem related to the work machine;
displaying at least one question, as a
15 function of the initial problem;
displaying a first set of recommended
actions, as a function of the initial problem;
receiving an answer from the user to the at
least one question;
20 displaying the answer provided by the user;
displaying a second set of recommended
actions as a function of the initial problem and the
answer to the at least one question, wherein the
second set of recommended actions is a subset of the
25 first set of recommended actions;
displaying a confidence level associated
with each recommended action in the first and second
sets of recommended actions; and,
providing a link to information related to
30 the work machine in an external source.

22. A computer based system for providing

case base diagnostics for a work machine, the case bases being comprised of diagnostic information and processes related to the work machine, comprising:

an external source containing service
5 information related to the work machine; and,
a diagnostic advisor tool for interaction with a user, receiving information from the user and responsively displaying at least one recommended action, and providing a link to relevant information
10 within the external source.

23. A computer based system, as set forth in claim 22, wherein the diagnostic advisor tool is adapted to receive, from the user), a description of
15 an initial problem related to the work machine, display at least one question, as a function of the initial problem, and display a first set of recommended actions, as a function of the initial problem.

20 24. A computer based system, as set forth in claim 23, wherein the diagnostic advisor tool is adapted to receive an answer from the user to the at least one question and display a second set of
25 recommended actions as a function of the initial problem and the answer to the at least one question, wherein the second set of recommended actions is a subset of the first set of recommended actions.

30 25. A computer based system, as set forth in claim 24, wherein the diagnostic advisor tool is adapted to display the answer provided by the user.

26. A computer based system, as set forth
in claim 22, wherein the diagnostic advisor tool is
adapted to display a confidence level associated with
5 each recommended action in the first and second sets
of recommended actions.

27. A computer based system, as set forth
in claim 26, wherein the confidence level is displayed
10 as a bar graph.

28. A computer based system, as set forth
in claim 22, wherein the diagnostic advisor tool is
adapted to display a status associated with each
15 recommended action in the first and second sets of
recommended actions.

29. A computer based system, as set forth
in claim 28, wherein the status associated with each
20 recommended action has a value of one of performed or
not performed.

30. A computer based system, as set forth
in claim 22, wherein the diagnostic advisor tool is
25 adapted to provide a link to information related to
the work machine in an external source.

31. A computer based system, as set forth
in claim 30, wherein the diagnostic advisor tool is
30 adapted to display the information in response to
actuation of the link.

32. A computer based system, as set forth
in claim 22, wherein the diagnostic advisor tool is
adapted to display two or more questions and to
identify inconsistent answers provided by the user to
5 the two or more questions.

33. A computer based system, as set forth
in claim 22, wherein the diagnostic advisor tool is
adapted to read data values from the work machine.
10

34. A computer based system, as set forth
in claim 22, including the step of displaying an alert
link corresponding to the at least one question.

35. A computer based system, as set forth
in claim 22, wherein the diagnostic advisor tool is
adapted to display an alert dialog in response to
actuation by the user of the alert link.
15

36. A computer based system, as set forth
in claim 22, wherein the diagnostic advisor tool is
adapted to display an alert link corresponding to at
least one recommended action from one of the first and
second sets of recommended actions.
20

37. A computer based system, as set forth
in claim 36, wherein the diagnostic advisor tool is
adapted to display an alert dialog in response to
actuation by the user of the alert link.
25

38. A computer based system, as set forth
in claim 37, wherein the diagnostic advisor tool is
30

adapted to display a question detail window containing detailed information regarding the at least one question, in response to user selection of the at least one question.

5

39. A computer based system, as set forth in claim 22, wherein the diagnostic advisor tool is adapted to display an action detail window containing detailed information regarding a selected action from one of the first and second sets of recommended actions.

40. A computer based system for providing case base diagnostics for a work machine, the case bases being comprised of diagnostic information and processes related to the work machine, comprising:
an external source containing service information related to the work machine;
a diagnostic advisor tool for interaction with a user, receiving information from the user and responsively displaying at least one recommended action, and providing a link to relevant information within the external source; and
a graphical user interface for operation by the user.

30

41. A computer based system, as set forth in claim 40, wherein the graphical user interface includes a diagnostic advisor window.

42. A computer based system, as set forth in claim 40, wherein the graphical user interface

includes a tabbed panel having a plurality of tabs, wherein selection of one of the tabs results in a respective one of a plurality of panels being displayed in the tabbed panel.

5

43. A computer based system, as set forth in claim 42, wherein each of the plurality of tabs corresponds to a diagnose problem panel, a diagnostic code panel, and a functional tests panel, respective.

10

44. A computer based system for providing case base diagnostics for a work machine, the case bases being comprised of diagnostic information and processes related to the work machine, comprising:

15

an external source containing service information related to the work machine; and,

a diagnostic advisor tool for interaction with a user, receiving information from the user and responsively displaying at least one recommended action, and providing a link to relevant information within the external source;

20

wherein the diagnostic advisor tool is adapted to receive, from the user, a description of an initial problem related to the work machine, display at least one question, as a function of the initial problem, and display a first set of recommended actions, as a function of the initial problem; to receive an answer from the user to the at least one question and display a second set of recommended actions as a function of the initial problem and the answer to the at least one question, wherein the second set of recommended actions is a subset of the

25

30

first set of recommended actions; to display a confidence level associated with each recommended action in the first and second sets of recommended actions; and to provide a link to information related to the work machine in an external source.

45. A computer program product for providing case base diagnostics for a work machine, the case bases being comprised of diagnostic information and processes related to the work machine, the computer program product comprising a computer usable storage medium having computer readable program code means embodied in the medium, the computer readable program code comprising:

computer readable program code means for receiving from an user, a description of an initial problem related to the work machine;

computer readable program code means for displaying at least one question, as a function of the initial problem;

computer readable program code means for displaying a first set of recommended actions, as a function of the initial problem;

computer readable program code means for receiving an answer from the user to the at least one question; and,

computer readable program code means for displaying a second set of recommended actions as a function of the initial problem and the answer to the at least one question, wherein the second set of recommended actions is a subset of the first set of recommended actions.